



Draft- Summary of Issues

Relevant to a Methodology
for the Development of a
Model Integrated Waste Tire
Management Plan
Framework for the State of
Baja California, Mexico

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INTRODUCTION AND BACKGROUND CONTEXT

California used and waste tires flow into Mexico through various legal and illegal means as part of the cross-border tire trade, contributing to the approximately 1.5 million waste tires in Baja-California needing disposal each year. For 2008, 637,500 of these tires arrived in Baja through legal imports, still below the official import quota (by 15%) set by the Federal Government of Mexico. The number of tires arriving illegally is unknown, but has been estimated as between 10% and 150% of the official flow (CalRecycle 2009). While customs agents dispute the higher of these two numbers, citing a lack of any sufficient large seizures of illegal tires at the border to warrant them, the numbers of tires potentially moving across the border in much smaller quantities could be quite large. With new tire sales in Baja averaging around 500,000/year, and an additional 80,000 tires being imported on associated used and scrap cars, there is a roughly 700,000 tire gap in official numbers that has been hard to track. Regardless of source, many of these tires end up being illegally disposed of along the 167 mile California/Mexico border region. While over 30% are diverted to CEMEX cement kilns as a source of fuel and another 30% used in formal and informal civil engineering projects, the remainder are either landfilled, or dumped illegally, many along the U.S. Mexico border. Additionally, while five of six large waste tire piles in Baja-California have been cleaned up through the Border 2012 collaboration, there remain numerous smaller piles that represent significant additional environmental and health burdens.

The improper disposal of tires in this region poses a serious risk to public health, safety, and the environment, on both sides of the border. These scrap tires pose an environmental and health risk for several reasons. If disposed of in informal waste piles or improperly managed dump sites, they can be breeding grounds for vectors carrying a range of diseases, including Malaria, dengue fever, encephalitis, West Nile virus, and Yellow Fever (EPA 2010). These tires can also leach chemicals into soil and water tables, and generate sufficient gases at high enough concentrations of tires to create an air pollutant risk and fire hazard. As these tires, and the environmental risks

associated with them can traverse the political boundary between California and Baja-California, this becomes a regional problem.

To develop a model border used and waste tire management plan framework for Baja California, Mexico (Model Framework), that addresses these risks, it is crucial to identify issues relevant to the legal and illegal used and waste tire trade (tire trade). By furthering an understanding of these pertinent issues, it will enable an effective evaluation of the relative impact of different policy mechanisms to address the tire trade. These issues identified - if not mitigated under an effective policy framework - have significant capacity to continue to advance the negative externalities associated with the tire trade.

This draft summary of issues document prepared by the University of California Center for Environmental Public Policy (CEPP) includes the following components as defined in Task Three of the Scope of Work in the contract between the CalRecycle and CEPP:

- 1. Incorporation of comments and suggestions from CalRecycle based on the literature review and analysis provided to the contract manager to enhance the issue summary preparation.**
- 2. Incorporation of comments and suggestions from CalRecycle based on the first draft summary of issues provided to the contract manager**

This summary of issues document, compiled from an analysis of the literature review defined by Task Two of the Scope of Work, identifies the background context, current issues/obstacles, policy and outcome evaluation criteria, and preliminary/generalized policy options relevant to the development of a Model Framework. This summary of issue document is organized into three sections: and introduction that provides some basic background context; a formal summary of issues that highlights the most significant obstacles to current integrated management of waste tires in Baja-California, Mexico; a section delineating useful criteria – Fiscal Impact and Sustainability, Political Feasibility, Robustness, and Effectiveness – for evaluating policy options that address the above obstacles; and a brief notation of some potential criteria for evaluating policy outcomes. The goal of this summary of issues is not to provide concrete policy options or to present a comprehensive report on the waste-tire problem along the California, Baja-California border, but rather to present a preliminary methodology for developing a model framework for the border region.

SIGNIFICANT OBSTACLES TO INTEGRATED WASTE-TIRE MANAGEMENT IN BAJA-CALIFORNIA, MEXICO

1. The border acts as a congregation point for waste and used tires given the substantial markets for used tires on both sides of the U.S.-Mexico border. The region draws tires from other parts of the border states, and potentially from other states due to the strong market demand for used tires. The majority of the waste and used tires that congregate along the border stay along the border once they reach their end of life.
2. Jurisdictional overlaps in authority for the management of waste and used tires
3. Financial constraints among the State of Baja-California and the local municipal departments to fund appropriate integrated waste-tire management programs
4. Lack of existing disposal infrastructure for waste tires contribute to the accelerated accumulation of tire piles
5. Undeveloped tire-derived product markets in Mexico and high fees for disposal at CEMEX or the Mexicali Land Fill result in many tires being disposed of informally
6. Illegal importation of tires across the border from California to Baja-California (and potentially from other U.S. States through California to Baja-California) is currently and unknown additive, but potentially a substantial source of used and waste tires in Baja-California
7. Difficulty in tracing all sources of waste tires ending up in Baja-California prevents ideal targeting of programs
8. Technological constraints to the development of tire-derived product infrastructure and markets.
9. Lack of consumer education on tire safety, proper disposal, and the problems associated with waste tire piles.

EVALUATION CRITERIA

1 CRITERIA FOR ANALYZING POLICY OPTIONS (HOW POLICIES WORK)

1.1 FISCAL IMPACT AND SUSTAINABILITY

1.1.1 ADMINISTRATIVE COST

Introducing or implementing policy programs to address the waste tires will have substantial costs associated with program administration. In establishing a framework, these costs will need to be identified and addressed for any successful policy program.

ENFORCEMENT

This is potentially the most significant reoccurring cost that Baja-California and the border municipalities will incur on an annual basis in regards to waste tires.

CLEAN-UP PROGRAMS

While many clean-up programs have been financed to date by the Border 2012 program, this work is coming to an end. Future financing for clean-ups of the more scattered, small-scale tire piles, which potentially contain as many tires in aggregate as large piles had, is unclear. These smaller tire pile clean-ups generally cost twice to four times as much as the larger piles, due to their scattered nature.

EDUCATION

Education programs have been a valuable part of the California and U.S. East Coast state experience in encouraging better maintenance of new and used tires to extend tire life, as well as in proper disposal and management of used tires and waste tires.

MARKET DEVELOPMENT FINANCING

Market development is another substantial expenditure for many U.S. state waste-tire programs, and one responsible for quite a bit of the increasing diversion of waste tires away from landfills over the past decade. These grants, while not indefinite, have been used by California, for instance, to help support and often create new markets for waste tires.

1.1.2 SOURCES OF FINANCE

For the long-term success of policy programs, the funding sources must be identified and established. Sources could include but are not limited to taxes, local and state user and processor fees, foreign support, federal budget allocation, and aid.

TIRE FEES

There are a variety of mechanisms that can be used to fund waste tire management programs. In the United States, these have included fees assessed at the point of purchase of new tires (e.g. California, Arizona, New York, Illinois, Virginia), fees assessed at annual vehicle registration (e.g. New Mexico, Michigan), and by solid waste transporter registration fees (e.g. Texas), or “tipping fees” on a per-ton basis assessed on all waste managed at municipal waste landfills and resource recovery facilities in the state (e.g. Pennsylvania). Baja-California has yet to pass a legally binding equivalent fee or tax on new tires. There is a voluntary tire fee that tire-importers can pay to offset their responsibilities in ensuring the proper management of 80% of the tires they import as mandated by law, but this has to date not been very effective in raising funds.

POINT OF COLLECTION

In general, waste tire fees are not as effective collected at the point of disposal as at the point of purchase of new tires.

COLLECTION MANDATES

Many states still allow consumers to keep their used tires when purchasing new ones to avoid the fee. This allows a good number of used tires to escape the formal used and waste tire regulatory systems in place, especially closer to the border where there are easy and lucrative transport and re-sale options. In general, it is more common to see mandates that tire retailers accept used tires than mandates that consumers leave their used tires with the retailers upon purchase of new tires (e.g. California, New York).

POLITICAL SURVIVABILITY

Tire fees can be quite subject to fluctuation and political pressures. Most states include so-called “sunset clauses” in their tire fees, although these are often extended. Tire fees in various U.S. states have fluctuated quite substantially since their inception, and there is significant pressure from the industry to reduce these fees across the board. Working to diversify the source of funding for waste-tire management and enforcement can be difficult.

1.2 POLITICAL FEASIBILITY

1.2.1 POLITICAL ACCEPTABILITY

TAXES AND FEES

How these fees or taxes are authorized and implemented has implications on the sustainability of the finance, and how the revenue generated can be used. For instance, California law requires that taxes be passed by a supermajority two-thirds vote of the Legislature. Taxes are levied for general revenue purposes and are subject to diverse competing demands. A fee requires a simple majority vote. However, a fee is subject to certain conditions, most importantly the use of a fee is limited to providing benefits or addressing burdens that are reasonably related to the adverse effects that give rise to the fee; and the amount of the fee may not exceed the reasonable cost of

providing these activities. Although fees require only a majority vote, their use and amount are restricted and failure to adhere to these restrictions could render the fee invalid.

1.2.2 LEGALITY

In addressing integrated waste management options along the border, the legality of policy options must be assessed as they relate both to management of used and waste tires within their jurisdictions and across jurisdictional boundaries. For instance, as noted above, the use of fees in California is constrained by California's regulatory authority (effectively its regulatory jurisdiction), thus there are formal legal obstacles to using the fee for programs on the Baja side of the border.

INSTITUTIONAL RESPONSIBILITIES AND JURISDICTIONS

Overlapping institutional jurisdictions, management responsibilities, and fundraising options require clarification in order to establish a standardized integrated waste plan for the state. For instance, The LPGBC of 2007 in Baja-California establishes a life-cycle regulatory framework for waste tires, in principle. This provides a valuable legal basis for an integrated management plan, at it establishes the basis for formulating a "cradle to the grave" system of responsibility for tires in Baja-California. However, given the overlapping nature of responsibilities for waste tire management as it now stands, there is not clarity as to how this law might be implemented.

INTERNATIONAL ENTITIES

Given that the state of Baja California shares a border with the United States, there is potential to use international entities as a resource to help implement Baja California's Waste Tire Management Program along the border region. For example, the Border 2012 program, the Council of State-Governments-West, and/or the Border Environment Cooperation Commission (BECC) can function as bi-national mechanisms to facilitate Baja California's Waste Tire Management efforts along the U.S.-Mexico border area specifically. However, with bilateral cooperation arrangements sometimes temporary and lacking continuity, advancement of more long-standing partnerships such as the Border Governors Council could lend greater permanence.

GOVERNANCE - FEDERAL

The Federal Agency of Environment and Natural Resources in Mexico is the Secretariat of the Environment and Natural Resources (SEMARNAT). The SEMARNAT coordinates and evaluates policies and guidelines for environmental protection and sustainable usage of natural resources at the national level. The SEMARNAT has explicit jurisdiction over all hazardous materials. The Secretariat of the Economy also has a role in waste management. It is the federal agency responsible for authorizing and distributing the yearly used tire importation quotas. These quotas are negotiated yearly by the Secretariat, federal and state government authorities, and tire dealer associations.

GOVERNANCE - STATE

The Baja California Secretariat of Environmental Protection (SPABC) is the agency responsible for applying state-level policy for environmental protection, including waste management policies and provisions. The SPABC has legal jurisdiction over non-hazardous waste, and over special management waste. No institutional framework exists within the Baja California Secretariat (SPBC) policies specifically regarding waste tire management. No auditing or enforcement programs are currently directed to the management of waste tires.

GOVERNANCE - MUNICIPAL

Municipalities may assist the state and federal governments in efforts to promote large scale environmental protection. Municipalities can raise revenue through property taxes, user fees, and other local services. However, most municipal funds are obtained from the state and federal governments instead of from their own collection efforts. Additionally, each municipality is administratively autonomous. With Baja California divided into five municipalities – Ensenada, Mexicali, Tecate, Tijuana, and Playas de Rosarito. – the municipalities cover large areas incorporating several separated cities or towns that do not necessarily conform to one single urban area. Each municipality is responsible for public services such as water and sewage, street lighting, public safety, traffic, cleaning services and maintenance.

1.3 FLEXIBILITY

1.3.1 IN WORKING WITHIN CURRENT MARKET CONDITIONS

Market conditions developed over time, often with the substantial support of market development programs, and some derived entirely from public procurement programs (such as RAC use in transportation infrastructure). Baja-California has the potential for similar market developments to those promoted in U.S. border states, but will obviously adapt to the different demands of citizens in Baja-California municipalities. Baja-California has the potential for a substantially diversified, but potentially more decentralized market for waste tires, which creates a different set of demands on the state in promoting adaptive markets.

1.3.2 IN ABILITY TO ADAPT TO CHANGING MARKET CONDITIONS

Baja-California's automobile sales have expanded rapidly in the last decade, and as imports comprise a large quantity of used tire sales in Baja, global economic conditions can cause fluctuations in supply, thus creating a volatile market. Any model plan will have to consider a more volatile market than is currently present in California. As a result of this volatility, for instance, diversification of markets will likely be an important component determining the sustainability of the overall system.

1.4 EFFECTIVENESS

1.4.1 IN REDUCING ENVIRONMENTAL AND HEALTH IMPACTS OF WASTE TIRES IN BAJA-CALIFORNIA

Any diversion program should be weighed, in environmental and health terms, against the environmental and health impacts of leaving tires in landfills or distributed dump sites. However, in considering market promotion activities aimed at reducing the environmental and health burdens on municipalities and communities, one burden should not replace another.

1.4.2 IN AVOIDING NEGATIVE SOCIO-ECONOMIC SIDE-EFFECTS

A key to the border used and scrap tire issue is the socioeconomic dependencies that the used and scrap tire markets in Baja-California generate. Any policies or programs that alter the flow of used and waste tires has the potential to impact these livelihoods, and thus also demands a precautionary approach to development.

1.4.3 IN WORKING WITH CURRENT PROGRAMS AND INSTITUTIONAL STRENGTHS

The Municipal government entities in Baja California have initiated local community cleaning programs to safely dispose of waste. These programs exist, in one form or another in each of the five municipalities of Baja California (Ensenada, Mexicali, Tecate, Tijuana, Playas de Rosarito). The existing programs are not continuous waste management programs targeting waste tires. Instead these are periodic cleaning events that take place occasionally and are administered at the community level. However, they provide a functional base-line program that may be able to be scaled up and/or targeted for waste tires.

2 CRITERIA FOR ANALYZING POLICY OUTCOMES (WHAT POLICIES DO)

2.1 OUTCOMES INCLUDE PRIMARY TARGET OUTCOME (IN THIS CASE, REDUCING ENVIRONMENTAL AND HEALTH BURDENS OF WASTE TIRES IN BAJA-CALIFORNIA)

2.2 OUTCOMES OBTAINED IN A TIME-FRAME OF RELEVANCE TO INITIAL PROBLEM

2.3 OUTCOMES ARE EQUITABLE (THEY DO NOT CREATE DISPROPORTIONATE BURDENS ON ANY GROUP)

2.3 OUTCOMES ARE ENVIRONMENTALLY AND SOCIALLY ACCEPTABLE

2.4 OUTCOMES ARE ENVIRONMENTALLY SUSTAINABLE

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